

(No Model.)

2 Sheets—Sheet 1.

S. WHEELER.

MEDICATED PAPER FOR SURGICAL OR TOILET USE.

No. 302,073.

Patented July 15, 1884.

Fig. 1.

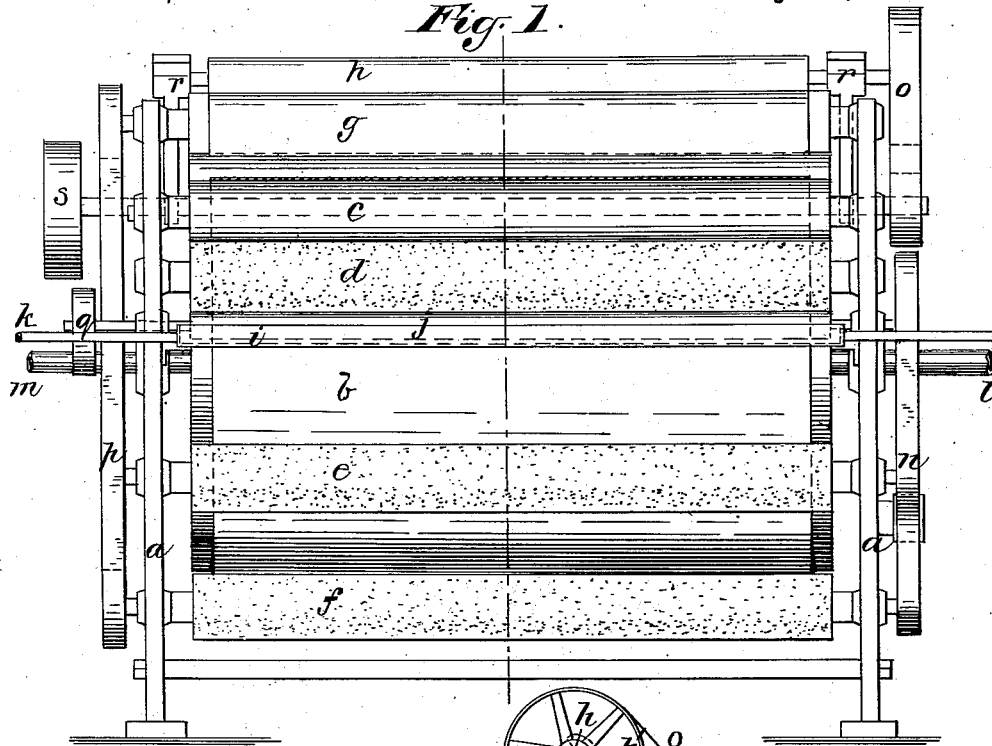
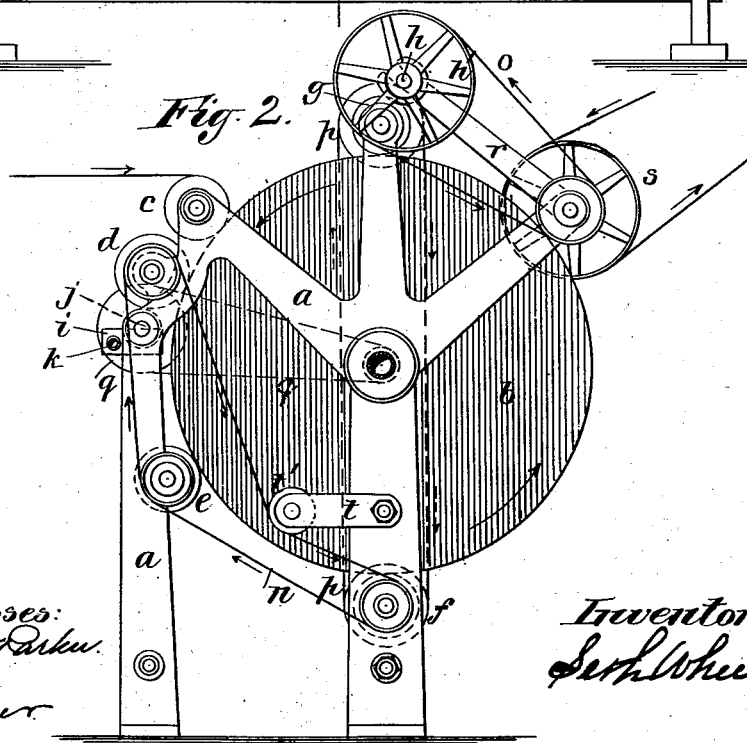


Fig. 2.



Witnesses:
Henry F. Parker.
S. Wheeler.

Inventor:
Seth Wheeler.

(No Model.)

2 Sheets—Sheet 2.

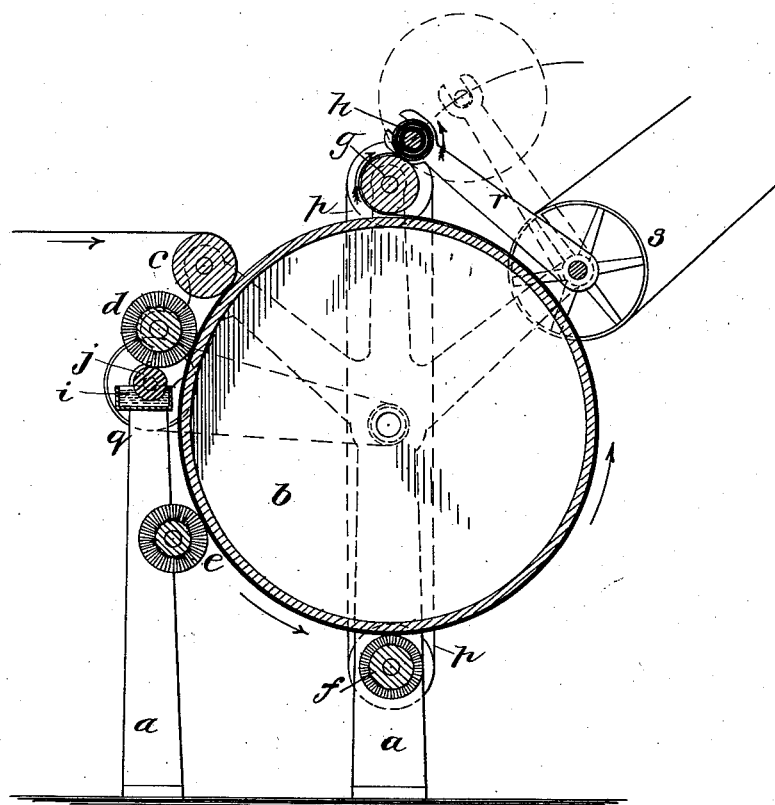
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Fig. 3.



Witnesses:
 Henry F. Parker.
 J. Wheeler.

Inventor:
Seth Wheeler,

UNITED STATES PATENT OFFICE.

SETH WHEELER, OF ALBANY, NEW YORK.

MEDICATED PAPER FOR SURGICAL OR TOILET USE.

SPECIFICATION forming part of Letters Patent No. 302,073, dated July 15, 1884.

Application filed March 28, 1884. (No specimens.)

To all whom it may concern:

Be it known that I, SETH WHEELER, of Albany, in the State of New York, have invented a new and Improved Medicated Paper for Surgical or Toilet Use, of which the following is a specification.

Strong paper treated in its finished condition with remedial disinfectants or antiseptic agents is of great value in surgical practice, answering the purpose of oiled silk and more expensive dressings. It has for such use the advantage of cheapness, thus admitting at a small cost of change of bandage at every dressing.

Heretofore in the manufacture of "medicated paper," so called, by the admixture of drugs or remedial agents to the pulp while in the heating-engines, there is an apparent impossibility of using anything that will not unite with water. Consequently many of the most valued remedial agents cannot be used, and of those that may be used, only the cheapest are available, on account of the excessive amount of water with which the pulp is diluted preparatory to passing to the forming machinery, where, in connection with the driers, all water and moisture is removed, carrying with it nearly, if not all, of any ingredients that may have been added with a view to medicating the paper. Only a trace of anything combined can be discovered by chemical analysis. No attempt has heretofore been made to medicate the finished sheet, probably because of the seeming impossibility of so doing, as the slightest wetting of the thin paper causes it to contract, and in drying it wrinkles, and consequently loses its smooth surface. By treating the manufactured sheet with an agent of an unctuous or oily nature—such as vaseline, glycerine, paraffine, or any of the animal or vegetable oils—we have a vehicle in which to place and to transfer upon the finished sheets the agents most valued by the medical profession for their soothing antiseptic and disinfectant properties.

My invention therefore consists in a medicated paper, such paper carrying an unctuous or oily substance as a vehicle for the remedial disinfectant or antiseptic agent. The manner of preparing this paper from the finished sheet will be claimed in another application, also the machinery therewith employed. To pre-

pare this paper I proceed by the means and in the manner now described.

In the drawings, Figure 1 is a front elevation of the machine employed in carrying out my invention. Fig. 2 is an end elevation thereof. Fig. 3 is a central vertical cross-section thereof, taken in the line *xx* of Fig. 1.

a a are the end standards, in which are journaled the following elements, namely: *b*, the drying-cylinder; *c*, the receiving-roll over which the paper to be treated runs on its passage to the periphery of the drying-cylinder; *d*, a cylindrical medicating-brush; *e*, a cylindrical distributing-brush; *f*, another distributing and which acts also as a polishing brush. *g* is the delivery-roll. *h* is the winding-shaft, onto which the medicated paper is delivered. *i* is the medicine-trough, extending from the one standard to the other underneath the bearings of the medicating-brush *d*. *j* is a trough-roll having bearings intermediate between the medicating-brush *d* and trough *i*. *k* is a steam-pipe passing through the trough *i* for warming the medicine. *l* is a steam-inlet pipe to admit steam to interior of the drying-cylinder, such pipe passing through one of the hollow journals of the revolving cylinder. *m* is an outlet-pipe for the condensed steam, also passing through the hollow journal of the cylinder at the other end of the machine. *n* is a belt for driving the brushes *d* and *e*, it passing over pulleys on the ends of the shafts of brushes *d*, *e*, and *f*. *o* is a belt which serves to drive the winding-shaft *h*, such belt passing over the main driving-pulley and pulley-wheel *h'* on shaft *h*. *p* is a belt for driving the distributing and polishing brush *f*, it passing over pulleys on the ends of shafts of the roll *g* and brush *f*. *q* is a belt for driving the trough-roll *j*, it passing over pulleys on the ends of the shafts of the trough-roll *j* and the drying-cylinder *b*. *r r* are the standards for the bearings of the winding-shaft *h*, and such standards have their bearings on the shaft of the main driving-pulley. *s* is the main driving-pulley. *t* is a swinging arm pivoted on one of the end standards and carrying a friction-roller, *t'*, which serves as a tightening-pulley to the driving-belt *n*.

Motion is communicated by means of the belt

o passing over the driving-pulley *s* from the shaft of the latter to the winding-shaft *h*. The winding-shaft *h* acts as a driver to the apparatus, first driving delivery-roll *g* by frictional contact, which roll *g*, through the belts *p* and *n*, drives the brushes *f* *e* *d*. The drying-cylinder *b* is driven by the passage over it of the web of paper coming from the receiving-roll *c*, and by the movement of the cylinder motion is communicated to the medicine-take-up roll *j* by the belt *q*, arranged as hereinabove stated.

The operation of the machine is as follows: The web of paper to be treated with the medicating preparation enters by passing onto the periphery of the drying-cylinder over the receiving-roll *e*. It receives immediately the medicating preparation from the brush *d*, which brush is supplied from the trough *i* by the take-up roll *j*, which roll rotates partly within the trough for such purpose. The paper then passes to the distributing or equalizing brush *e* to have the preparation more evenly distributed. It then passes to brush *f*, which serves

to polish and finish the paper so treated. The paper, still being kept in close contact with the heated cylinder, passes onto the delivery-roll *g*, over which roll it passes, and is received onto the winding-shaft *h*, and then rewound into a web.

More brushes may be added to the machine, or the brush *e* or the brush *f* may be omitted in the operation, this depending altogether upon the degree of finish it is desired to give the paper so treated.

I claim—

Paper treated with combined agents composed of an unctuous or oily substance and a remedial disinfectant or antiseptic agent, the former serving as a vehicle to properly retain the latter in the paper during the process of introducing the latter.

SETH WHEELER.

Witnesses:

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E. J. WHEELER.